



## Complete Summary

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### TITLE

Acute myocardial infarction: median time to transfer to another facility for acute coronary intervention.

### SOURCE(S)

Centers for Medicare & Medicaid Services (CMS). Specifications manual for hospital outpatient department quality measures (v 2.1a). Baltimore (MD): Centers for Medicare & Medicaid Services (CMS); 2009. 245 p.

## Measure Domain

### PRIMARY MEASURE DOMAIN

Process

The validity of measures depends on how they are built. By examining the key building blocks of a measure, you can assess its validity for your purpose. For more information, visit the [Measure Validity](#) page.

### SECONDARY MEASURE DOMAIN

Does not apply to this measure

## Brief Abstract

### DESCRIPTION

This measure is used to assess the median time (in minutes) from emergency department (ED) arrival to time of transfer to another facility for acute coronary intervention in acute myocardial infarction (AMI) patients 18 years and older.

### RATIONALE

The early use of primary angioplasty in patients with acute myocardial infarction (AMI) who present with ST-segment elevation or left bundle branch block (LBBB) results in a significant reduction in mortality and morbidity. The earlier primary coronary intervention is provided, the more effective it is. National guidelines recommend the prompt initiation of percutaneous coronary intervention (PCI) in patients presenting with ST-segment elevation myocardial infarction. Despite these recommendations, few eligible older patients hospitalized with AMI receive primary angioplasty within a timely manner. Patients transferred for primary PCI

rarely meet recommended guidelines for door-to-balloon time. Times to treatment in transfer patients undergoing primary PCI may influence the use of PCI as an intervention. Current recommendations support a door-to-balloon time of 90 minutes or less.

## **PRIMARY CLINICAL COMPONENT**

Acute myocardial infarction (AMI); ST-segment elevation; left bundle branch block (LBBB); acute coronary intervention; transfer

## **DENOMINATOR DESCRIPTION**

Patients 18 years and older with an emergency department (ED) encounter who were discharged/transferred to a short-term general hospital for inpatient care or to a Federal healthcare facility with a diagnosis of acute myocardial infarction (AMI) and ST-segment elevation or left bundle branch block (LBBB) on electrocardiogram (ECG) performed closest to ED arrival and who were transferred for acute coronary intervention

## **NUMERATOR DESCRIPTION**

*Continuous variable statement:* Time (in minutes) from emergency department (ED) arrival to transfer to another facility for acute coronary intervention

### **Evidence Supporting the Measure**

## **EVIDENCE SUPPORTING THE CRITERION OF QUALITY**

- A clinical practice guideline or other peer-reviewed synthesis of the clinical evidence
- One or more research studies published in a National Library of Medicine (NLM) indexed, peer-reviewed journal

## **NATIONAL GUIDELINE CLEARINGHOUSE LINK**

- [\(1\) ACC/AHA guidelines for the management of patients with ST-elevation myocardial infarction. A report of the American College of Cardiology/American Heart Association Task Force on Practice Guidelines \(Committee to revise the 1999 guidelines for the Management of Acute Myocardial Infarction\). \(2\) 2007 focused update of the ACC/AHA 2004 guidelines for the management of patients with ST-elevation myocardial infarction. A report of the American College of Cardiology/American Heart Association Task Force on Practice Guidelines.](#)

### **Evidence Supporting Need for the Measure**

## **NEED FOR THE MEASURE**

Overall poor quality for the performance measured  
Use of this measure to improve performance

## **EVIDENCE SUPPORTING NEED FOR THE MEASURE**

Jencks SF, Cuerdon T, Burwen DR, Fleming B, Houck PM, Kussmaul AE, Nilasena DS, Ordin DL, Arday DR. Quality of medical care delivered to Medicare beneficiaries: A profile at state and national levels. JAMA2000 Oct 4;284(13):1670-6. [PubMed](#)

Nallamothu BK, Bates ER, Herrin J, Wang Y, Bradley EH, Krumholz HM. Times to treatment in transfer patients undergoing primary percutaneous coronary intervention in the United States: National Registry of Myocardial Infarction (NORMI)-3/4 analysis. Circulation2005 Feb 15;111(6):761-7. [32 references] [PubMed](#)

### **State of Use of the Measure**

#### **STATE OF USE**

Current routine use

#### **CURRENT USE**

External oversight/Medicare  
Internal quality improvement

### **Application of Measure in its Current Use**

#### **CARE SETTING**

Hospitals

#### **PROFESSIONALS RESPONSIBLE FOR HEALTH CARE**

Measure is not provider specific

#### **LOWEST LEVEL OF HEALTH CARE DELIVERY ADDRESSED**

Single Health Care Delivery Organizations

#### **TARGET POPULATION AGE**

Age greater than or equal to 18 years

#### **TARGET POPULATION GENDER**

Either male or female

#### **STRATIFICATION BY VULNERABLE POPULATIONS**

Unspecified

## Characteristics of the Primary Clinical Component

### **INCIDENCE/PREVALENCE**

Unspecified

### **ASSOCIATION WITH VULNERABLE POPULATIONS**

See the "Rationale" field.

### **BURDEN OF ILLNESS**

Unspecified

### **UTILIZATION**

Unspecified

### **COSTS**

Unspecified

## Institute of Medicine National Healthcare Quality Report Categories

### **IOM CARE NEED**

Getting Better

### **IOM DOMAIN**

Effectiveness  
Timeliness

## Data Collection for the Measure

### **CASE FINDING**

Users of care only

### **DESCRIPTION OF CASE FINDING**

Patients 18 years and older with an emergency department (ED) encounter who were discharged/transferred to a short-term general hospital for inpatient care or to a Federal healthcare facility with a diagnosis of acute myocardial infarction (AMI) and ST-segment elevation or left bundle branch block (LBBB) on electrocardiogram (ECG) performed closest to ED arrival and who were transferred for acute coronary intervention (see the "Denominator Inclusions/Exclusions" field)

## DENOMINATOR SAMPLING FRAME

Patients associated with provider

## DENOMINATOR INCLUSIONS/EXCLUSIONS

### Inclusions

- An *E/M Code* for emergency department (ED) encounter as defined in Appendix A, OP Table 1.0\*
- Patients discharged/transferred to a short-term general hospital for inpatient care or to a Federal healthcare facility
- An *International Classification of Diseases, Ninth Revision, Clinical Modification (ICD-9-CM) Principal Diagnosis Code* for acute myocardial infarction (AMI) as defined in Appendix A, OP Table 1.1\*
- ST-segment elevation or left bundle branch block (LBBB) on the electrocardiogram (ECG) performed closest to ED arrival
- Patients with *Transfer for Acute Coronary Intervention* as defined in the Data Dictionary\*

### Exclusions

- Patients less than 18 years of age
- Patients receiving *Fibrinolytic Administration* as defined in the Data Dictionary\*

\*Refer to the original measure documentation for details.

## RELATIONSHIP OF DENOMINATOR TO NUMERATOR

All cases in the denominator are equally eligible to appear in the numerator

## DENOMINATOR (INDEX) EVENT

Clinical Condition  
Diagnostic Evaluation  
Encounter  
Institutionalization  
Therapeutic Intervention

## DENOMINATOR TIME WINDOW

Time window follows index event

## NUMERATOR INCLUSIONS/EXCLUSIONS

### Inclusions

*Continuous variable statement:* Time (in minutes) from emergency department (ED) arrival to transfer to another facility for acute coronary intervention

**Exclusions**

None

**MEASURE RESULTS UNDER CONTROL OF HEALTH CARE PROFESSIONALS, ORGANIZATIONS AND/OR POLICYMAKERS**

The measure results are somewhat or substantially under the control of the health care professionals, organizations and/or policymakers to whom the measure applies.

**NUMERATOR TIME WINDOW**

Fixed time period

**DATA SOURCE**

Administrative data  
Medical record

**LEVEL OF DETERMINATION OF QUALITY**

Not Individual Case

**PRE-EXISTING INSTRUMENT USED**

Unspecified

**Computation of the Measure****SCORING**

Continuous Variable

**INTERPRETATION OF SCORE**

Better quality is associated with a lower score

**ALLOWANCE FOR PATIENT FACTORS**

Unspecified

**STANDARD OF COMPARISON**

External comparison at a point in time  
External comparison of time trends  
Internal time comparison

## Evaluation of Measure Properties

### EXTENT OF MEASURE TESTING

Unspecified

## Identifying Information

### ORIGINAL TITLE

OP-3: hospital outpatient acute myocardial infarction: median time to transfer to another facility for acute coronary intervention.

### MEASURE COLLECTION

[Hospital Outpatient Department Quality Measures](#)

### MEASURE SET NAME

[Hospital Outpatient Acute Myocardial Infarction](#)

### DEVELOPER

Centers for Medicare & Medicaid Services

### FUNDING SOURCE(S)

United States Department of Health and Human Services

### COMPOSITION OF THE GROUP THAT DEVELOPED THE MEASURE

Centers for Medicare & Medicaid (CMS) Contractor

### FINANCIAL DISCLOSURES/OTHER POTENTIAL CONFLICTS OF INTEREST

None

### ENDORSER

National Quality Forum

### ADAPTATION

Measure was not adapted from another source.

### RELEASE DATE

2008 Apr

**REVISION DATE**

2009 Jan

**MEASURE STATUS**

This is the current release of the measure.

**SOURCE(S)**

Centers for Medicare & Medicaid Services (CMS). Specifications manual for hospital outpatient department quality measures (v 2.1a). Baltimore (MD): Centers for Medicare & Medicaid Services (CMS); 2009. 245 p.

**MEASURE AVAILABILITY**

The individual measure, "OP-3: Hospital Outpatient Acute Myocardial Infarction: Median Time to Transfer to Another Facility for Acute Coronary Intervention," is published in the "Specifications Manual for Hospital Outpatient Department Quality Measures (Version 2.1a)." This document is available from the [QualityNet Web site](#). Check the QualityNet Web site regularly for the most recent version of the specifications manual and for the applicable dates of discharge.

**NQMC STATUS**

This NQMC summary was completed by ECRI Institute on February 20, 2009. The information was verified by the measure developer on May 8, 2009.

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